

REMARKS

Claims 1-9, 11, 12, 14, 15, 17-25, 27, 29 and 31-36, all the claims pending in the application, stand rejected. Applicant has amended independent claims 11, 14, 22, 27 and 36 and has revised the dependency of dependent claims 2-6 and 33-35. Claims 1, 8, 9, 15, 17, 18, 21-25, 29, 31 and 32 have been cancelled so that the claims may be focused on only a single feature of the invention.

In this regard, the independent claims 11, 22, 27 and 36, which relate to a game machine, have been amended to emphasize that original music continuing from a preamble to a main part can be played successively and the main part can be introduced naturally. Also, the game machine with this feature overcomes the problem that the excitement of the game is spoiled when the preamble which is not suitable for the game is output alone. To solve the problem, according to the present invention, the preamble and the connection music are overlapped and output by an original music reproduction means for beginning reproduction of the original music while overlapping with the connection music, upon arrival of original music reproduction timing. In other words, according to the present invention, it is only the preamble that is overlapped with the connection music. Thus, the flow of the music as a game effect is not spoiled by the connection music overlapping with the main part of the original music. Therefore, in the present invention, with the combination of the original music reproduction start timing storage means, the original music reproduction start timing monitoring means, and the original music reproduction means, the connection music is set to be completed upon the switching timing of (1) the preamble and (2) the main part.

Method claim 14 has been amended to emphasize this feature, and new program product claim 37 has been added and contains this feature.

As a final preliminary matter, Applicants note that claim 20 has not been rejected on the basis of prior art. Applicants cannot determine whether this was the result of an inadvertent omission by the Examiner or a deliberate conclusion that the claim would be patentable if the Section 101 rejection is overcome. In any event, should the Examiner newly reject claim 20 on the basis of prior art in the next Office Action, that Action should not be made final.

Claim Rejections - 35 U.S.C. § 101

Claims 19-20 are rejected under 35 U.S.C. § 101. This rejection is traversed for at least the following reasons.

The Examiner continues to contend that the claimed invention is directed to non-statutory subject matter. The Examiner interprets the device/method as claimed to be a signal for distribution of a program, which is considered to be non-statutory “since a signal, *per se*, is non-statutory subject matter due to not having any tangible, physical structure, not performing any useful, concrete or tangible result or does not form a tangible physical article or some form of matter (i.e., lacks physical characteristics).”

First, Applicants do note that the Examiner admits the subject matter may be patentable if coupled with or combined with statutory physical structure to produce a useful, concrete and tangible result. As subsequently demonstrated, a transmission medium is a statutory physical structure.

Second, Applicants conclude that the Examiner’s analysis in support of the rejection is flawed in several respects. With regard to claim 19, the claim is directed to a game program distribution device for distributing a program, which is operative to cause a computer to exit due to plurality of steps. Here, the term “device” itself reflects statutory subject matter. A device may be a program product that is either active or passive, for example, a recording medium requiring an external reader or a medium integrated with an active readout device. Further, to the extent that the Examiner equates this claim to a signal, earlier USPTO Guidelines for Computer-Related Inventions have indicated through clear examples that a “signal claim” is patentable. The signal traversing within a computer system or a signal carried by a radio wave are signals carried by a physical storage media, just as much as a floppy disk or memory stick. Accordingly, withdrawal of the rejection with respect to claim 19 is requested.

With regard to claim 20, the claim is directed to a game program distribution method for distributing a program operative for having a computer execute a plurality of steps. This claim is directed to a method of distributing, where the distribution is of a particular program for controlling execution of a computer. Such method does produce a useful, concrete and tangible

result, in that the performance of a game having the characteristics of the three steps recited in the claim would provide a useful, concrete or tangible result in the form of enhanced audio and video entertainment to a game user. Thus, this claim clearly meets the test for statutory subject matter and the rejection should be withdrawn.

Claims 14-15 are rejected under 35 U.S.C. § 101. In the Examiner's opinion, the claimed invention is directed to non-statutory subject matter. This rejection is traversed for at least the following reasons.

In explaining the rejection, the Examiner admits that the specification does disclose the performance of a series of acts that appear to be statutory. The Examiner finds the claims to be non-statutory, because they do not fall within the technological arts and are considered to be either an Abstract idea or a signal/wave form. The Examiner concludes that the claimed series of acts does not perform upon any subject matter to be transformed or it is reduced subject matter to a different state or thing. The Examiner considers the outputting of music portions to be an abstract idea. The Examiner states that this appears to be a signal and does not appear to require any structure for performing acts and only requires music to be output. The Examiner concludes that the invention contains no practical application so as to lack providing a useful, concrete and tangible result. In particular, the Examiner concludes that a player, during automated game play would be playing an "air guitar/drum or humming or whistling to a melody in the player's head/mind."

Applicants respectfully traverse the Examiner's rejection on several bases. First, the method is directed to outputting music and is "executable during automated game play." This feature is recited in the preamble of the claim and is directly coupled to music output steps with regard to original music and connection music. Such output clearly relates to play of a computer game, since the preamble recites that the method is "executable" and is performed during "automated game play." These phrases clearly relate to a game environment, as supported by the specification according to the Examiners' own admission.

Contrary to the Examiner's conclusion, this preamble limitation does "breathe life and meaning" into the overall claim. For one, they are related to the subject matter in the body of the

claim. Also, these phrases preclude a conclusion that such method would be performed solely in the mind of a player. Needless to say, words such as “executable” and “automated game play” do not apply to pure mental processes. Further, as noted with respect to the rejection of claims 19 and 20, these claims have a useful, concrete and tangible result. As supported by the specification, the result is the predetermined timed output of both original music and connection music. There again, the word “output” is related to a physical process and is a concrete, useful and tangible result. Such output would be more than simply processing in the mind of a user. As clearly supported by the specification, the term output relates to a physical audio and/or video presentation to a game player.

Finally, to the extent that the Examiner basis his rejection on the fact that the claim may cover a signal used in executing the method, as already demonstrated with regard to claims 19 and 20, such subject matter is statutory.

Claim Objections

In phrasing the objection, the Examiner states that if claims 4-6 are found allowable, claim(s) 33- 35 will be objected to as being a substantial duplicate thereof. The Examiner notes that there is a “slight difference in wording”, but that the claims are substantial duplicates.

The test in this regard is not “similarity,” but identity. Should the Examiner carefully review the subject matter of these claims, he will note that claims 4-6 are dependent upon both claim 1 or claim 2. These claims do not depend from claim 3 and an Amendment changing that dependency was filed on February 7, 2001. Claims 33-35, however, do depend from claim 3. Claim 3 requires a “volume control means,” which is not within claims 1 or 2. Thus, these claims have an additional limitation, which is not present in claims 4-6.

Applicants respectfully request that, for the foregoing reasons, the objection should be withdrawn.

Claim Rejections - 35 U.S.C. § 102

Claims 1, 8, 14-15, 17, 18, 25, 27, 29, 31-32 and 36 are rejected under 35 U.S.C. § 102(a) as being anticipated by either Yamaha Corp (JP 11-338468) or Taito Corp (JP 11-211919). This rejection is traversed for at least the following reasons.

First, as to claims 1, 8, 15, 17, 18, 25, 29, 31 and 32, the rejection is moot in view of the cancellation of these claims.

Second, with respect to claims 14, 27 and 36, these claims have been amended to better define the invention, and in particular, apparatus claims 27 and 36 define the invention in a manner that is similar to the way claim 11 has been amended, as discussed subsequently.

Third, claims 14, 27 and 36 are not anticipated because neither of Yamaha '468 nor Taito '191 teach all of the limitations present in those claims, as subsequently explained with regard to the rejection under section 103.

Claim 19 is rejected under 35 U.S.C. § 102(b) as being anticipated by Taito Corp (JP 10-222376). This rejection is traversed for at least the following reasons.

Claim 19 is directed to a game program distribution device for distributing a program, which is operative to cause a computer to execute a plurality of steps. The steps include a first original music output step for outputting during automated game play at least the main part and a post-amble of first original music. A second original music output step for outputting during automated game play at least a preamble and a main part of a second original music. Finally, a connection music output step of outputting during automated game play predetermined connection music by having a specific predefined association including start timing with said original music as stored. The connection music is output during a period between the main part and timing of the first original music and the main part start timing of the second original music. Finally, it is concurrent with at least the output of the preamble.

Taito '376

With regard to Taito '376, the reference does concern game program distribution systems and game equipment for arcades. In particular, it concerns distribution of a game program to the store of a game center using a communication line, as explained at Paragraph [0003]. However, Applicants respectfully note that the disclosure is related solely to the distribution of game data and does not concern the specifically claimed subject matter of claim 19, namely a music game having first original music output step, a second original music output step and a connection music output step. The Examiner appears to have ignored the limitations on the basis that the

subject matter is not a proper basis for patent protection. However, as already demonstrated with regard to the rejections under 35 U.S.C. § 101, these claims define statutory subject matter. Thus, the rejection should be overcome.

Claim Rejections - 35 U.S.C. § 103

Claims 2-3 and 11-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either Yamaha Corp (JP 11-338468) or Taito Corp (JP 11-211919), each in view of Yamaha Corp (JP 9-230880). This rejection is traversed for at least the following reasons.

The Examiner asserts that Yamaha '468 and Taito '191 each discloses a method or device teaching everything except cross-fading. The Examiner looks to Yamaha '880 (Sone) for teaching of cross-fading and asserts that it would have been obvious at the time of the invention to add cross-fading to Yamaha '468 or Taito '919 to link a plurality of output pieces smoothly. The patent to Sone (Yamaha '880) has been discussed extensively during prosecution with respect to both the illustrations in Fig. 7B and Fig. 7C.

Yamaha '468

As a preliminary matter, the Examiner appears to reject these claims on the basis of the comments made in the rejection of the corresponding Japanese Application No. 2000-029841. Notably, that partial translation of the Notice of Rejection states with regard to claim 1 that

“in Fig. 1 of the citation 1, it is disclosed that medley section output and timing of first music coincides with bridge data output start timing, and that medley section outputs start timing of second music coincides with bridge data output and timing. If “medley section,” “preceding part of the start timing of the medley section,” “subsequent part of the end timing of the medley section” and “bridge data” in citation 1 are related to “main part,” “preamble,” “post-amble” and “connection music” in present application, respectively, the invention in the claim 1 of the present application could easily have been made by a person with ordinary skill in the art to which the invention pertains. Also the invention in the claim 1 of the present application could easily have been made by a person with ordinary skill in the art when considering citation 2.”

The basic flaw in the Examiner's analysis is that the present invention concerns a "**game machine**" (claims 1, 8, 25, 27, 29 and 36), "**game music output method**" (claims 14, 15) or information storage medium for storing a program that causes a computer to execute a program for control of automated **game** play (claims 17, 18, 31 and 32), all of which are focused on a "game". By contrast, Yamaha '468 concerns **karaoke equipment** in which a medley performance of two or more musical selections is made possible without a break. In particular, Yamaha '468 is focused on providing bridging information for a karaoke machine that includes text, video and audio information. Yamaha '468 does not concern a game. Further, the comparison between the features of Yamaha '468 and the present invention, as recited in the Japanese Office Action, particularly the correspondence between the medley information of Yamaha '468 and the "original music" and "connection music" of the claimed invention, is improper as the medley music is not "original music."

Turning next to the details of Yamaha '468, Applicants again note that the disclosed **karaoke device** provides music by connecting medley pieces of music each of which is a part of a plurality of music data using a bridge, as disclosed at Paragraph 0016. The bridge data is stored corresponding to each medley section, as mentioned at Paragraph 0011. As to the manner in which the data is stored, Yamaha '468 can download bridge data and corresponding music data separately, and then store the bridge data and music data separately, as indicated in Fig. 3C. On the other hand, Yamaha '468 also contemplates storing the bridge data and music data together, as indicated in Fig. 3A and Fig. 3B, as well as Paragraph 0021. For example, the music data can consist of performance data 51, including medley L section 512 and medley S section 513. The bridge data can consist of bridge S data 52 corresponding to medley S section 513 and bridge L data 53 corresponding to medley L section 512, as disclosed at Paragraph 0032 with respect to Fig. 3A.

Notably, the start point and end point of the medley section 512 and 513 are defined in performance data by use of mark data, as mentioned at Paragraph 0023. The performance data is stored in a music track, and the mark data is stored in a separate control information track, as taught in Paragraph 0033. Fig. 4 shows the four tracks of music data arranged vertically.

In operation, according to Yamaha '468, bridge data is played immediately before the

corresponding medley section (Paragraph 0016, Fig. 5)

The medley section output end timing of the first piece of music coincides with output start timing of the bridge data, and the medley section output beginning timing of the second piece of music coincides with output end timing of the bridge data (Paragraph 0048). Fig. 5 indicates a sequence of steps including, after performing the first piece of music from the head to the end timing of the medley L section (1), then performing the bridge L data made to correspond to subsequent music data (2), and thereafter performing the medley L section of the piece of music (3)(Paragraph 0043).

Taito' 191

Taito also discloses a **karaoke device** that has an ability to insert a conversion phrase between a plurality of sabi (main music tone) when a medley music is composed by way of combining sabi of a plurality of music (Paragraph 0002, 0006 and 0007).

Taito also discloses a method to insert marking data in a start and an end of music data of all and/or a part of plurality of music, and to take out a part between start and end as sabi (Paragraph 0007).

Yamaha'880

Yamaha'880 (Sone) discloses a **karaoke device** with a medley function for playing continuously a plurality of karaoke music selected by a user (Paragraph 0011). With this function, the most exciting part of each karaoke music, sabi, can be picked up and performed (Paragraph 0011).

As music connecting methods, joining, bridge and cross-fading are all disclosed (Fig. 7).

Yamaha '880 teaches that a sabi start mark and a sabi end mark are written in a control information track of music data (Paragraph 0021). The section between sabi start mark and sabi end mark is identified as a "play section." It appears that the Examiner may consider the "play section" to correspond to the "main part" in the present application (Paragraph 0029).

In the joining method of Yamaha '880, the "play section" of a piece of music starts in synchronization with the end timing of sabi of preceding piece of music (Paragraph 0035).

The cross-fading method in Yamaha '880 sets a transitional section between the end timing of a "play section" of a preceding music and the start timing of a "play section" of a subsequent piece of music. In this transitional section, a section following the "play section" of the preceding piece of music and a section prior to the "play section" of the subsequent piece of music are overlapped and played in parallel (Paragraph 0036). At this time, two pieces of music are connected smoothly by performing cross-fading control for gradually turning down or up volume of respective piece of music (Paragraph 0036). The Examiner appears to consider this as a teaching of (1) a system for monitoring the reproduction start timing of a subsequent piece of music based on the sabi end mark while outputting the preceding piece of music, and (2) a system for starting the reproduction of a subsequent piece of music with an overlapping of the preceding piece of music upon arrival of the reproduction start timing of the subsequent piece of music.

The bridge method in Yamaha '880 involves inserting a "bridge section" in the transitional section between the end of play section of the preceding piece of music and the start of the play section of the subsequent piece of music (Paragraph 0039). The bridge section is automatically generated (Paragraph 0039). For example, the bridge section is generated so that its tempo changes smoothly from the tempo at the timing of sabi end point of the preceding piece of music to the tempo at the timing of sabi start point of the subsequent piece of music.

The game device according to the present invention stores not only music data relating to the connection music in accordance with each piece of original music (connection music storage), but also stores the reproduction start timing (TP) of the original music during the connection music being played (original music reproduction start timing storage). Then, using TP, the play of the subsequent music is controlled (using original music reproduction start timing monitoring and original music reproduction structures and steps).

On the other hand, while Yamaha '468 may be seen to disclose a structure corresponding to a connecting music storage, neither Taito '191 nor Yamaha '880 discloses a structure corresponding to connecting music storage. Moreover, Taito '191 does not disclose a method in which a conversion phrase inserted between sabi is stored in response to a piece of

music including sabi. Also, unlike the present invention that stores a connection beforehand, the bridge section in the method of Yamaha'880 is generated automatically and not stored beforehand in response to a piece of music.

In sum, none of (1) an original music start timing storage structure or step, (2) original music reproduction start timing monitoring structure or step, and (3) an original music reproduction structure or step, as claimed, are disclosed in Yamaha'468, Taito'191 or Yamaha'880.

Even with respect to the structure shown in Yamaha'468, Taito'191 and the bridge method of Yamaha'880, a section corresponding to a main part (i.e. medley section, sabi and play section) is cut out, and two main parts are connected while inserting the connection music between them; in other words, a section corresponding to preamble is not played. In other words, they do not have a structure for starting the play of preamble during the connection music, so they need not have the structures (1) - (3) noted above.

Even with respect to the connecting method of Yamaha '880. the main parts are played continuously without using the connection music, so it need not have the structures and steps (1) - (3) above. Furthermore, the cross-fading method of Yamaha'880 connects the preceding piece of music and the subsequent piece of music without using any connection music. Additionally, the reproduction start timing is determined by the sabi end mark of the preceding piece of music, so there is no need to store TP or to monitor its arrival. Accordingly, it need not have the structures (1)-(3) above.

Applicant also wishes the Examiner to note that the connection music according to the present invention is expressly defined as being stored corresponding to the original music, so that the reproduction start timing of the original music during the performance of the connection music can be defined. On the other hand, the cross-fading method of Yamaha'880 teaches karaoke medley techniques, and the first and the second pieces of music to be connected are selected independently and connected. Because of this feature, it is difficult to previously determine the reproduction start timing of the second piece of music during the performance of the first piece of music.

Claims 4-6, 9, 21-23 and 33-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaha '468 or Taito '919 each in view of either Yamaha '880 (Sone) or Roland Corp (JP 8-115084 -JP '084)) or Yamaha Corp (JP 2000-035785 - Yamaha '785). These rejections are traversed for at least the following reasons.

As a preliminary matter, with respect to rejected claims 9 and 21, the rejection is moot in view of the cancellation of these claims.

As to the remaining claims, Roland '084 and Yamaha '785 disclose only the structure for performing a control that changes gradually, based on the tempo of the preceding or subsequent pieces of music, and there is no teaching or suggestion of the above mentioned claimed features (1)-(3). Thus, the deficiencies of the rejection of the parent claims cannot be overcome by these references.

Claims 4-6 and 33-35

The rejected claims add to the limitations in the parent claims in consideration of a tempo of the connection music (except for claims 21-23). These claims should be patentable for the reasons given with regard to their parent claims.

Claims 22-23

With regard to claims 22-23, there is no teaching or suggestion of the original music determination means for determining during automatic game play or next original music to output, as recited in claim 22. Similarly, there is no game advancing means for advancing a game during automated game play according to the play conditions stored during successive reproduction of game music based on a plurality of pieces of original music, as recited in claim 22. Finally, claim 23 would be patentable for the reasons given with regard to claim 22 and a further recitation of game advancing means features, including timing guidance image display means.

Claim 24 is rejected under 35 U.S.C. § 103(a) as being unpatentable over either Yamaha '468 or Taito '919 each in view of either Yamaha '880 (Sone) or Roland '084 or Yamaha '785 as applied to claims 22 or 23 and further in view of Kyushu Hitachi Maxell, Ltd. (JP 52-17346). This rejection is traversed for at least the following reasons.

The claim concerns the determination of original music to the output on the basis of a random number. This claim would be patentable for the reasons given with regard to its parent claims 22 and 23. Further, there is no teaching or suggestion that medley music, as taught in Yamaha '468 or Taito '919 would be enhanced by random selection. Indeed, it would appear that a random performance of medley data may be irritating to a user, particularly where the user is required to sing in a karaoke fashion, and would not be an obvious addition to one of ordinary skill in the art.

Additionally, Kyusyu Hitachi Maxcell '346 discloses only the structure for determining a piece of music to be output next out of plural pieces of music based on random numbers, and there is no teaching or suggestion of the above mentioned features (1)-(3). Thus, the deficiencies of the rejection of the parent claims would not be overcome.

Allowable Claim

Claim 20

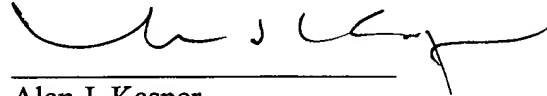
Finally, Applicants note that claim 20 has not been rejected on the basis of prior art. Applicants assume that this claim is patentable, since the rejection under 35 U.S.C. § 101 clearly is overcome. If the Examiner issues a rejection of this claim, Applicant submits that it cannot be made final.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment under 37 C.F.R. § 1.111
Application No. 09/778,055

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